

ABSTRACT

An FRP structural material having a plurality of sheets of a core material stacked in a thickness direction and an FRP skin layer disposed on at least one surface of the stacked core materials; an FRP structural material comprising a pair of spaced-apart plates, at least one plate containing FRP, and a seamless, enclosed hollow core material contained in the space; production methods for these FRP structural materials; and a method of repairing an FRP structural material, wherein, when a portion not impregnated with a resin is found on the surface of the material, the non-impregnated portion is entirely covered with a bag substrate, the inside covered with the bag substrate is evacuated and a resin is injected into the inside for impregnating into the non-impregnated portion of a reinforcing fiber substrate. A multiple-layer core structure allows an easy formation of a comparatively large FRP structural material having a curved surface. An FRP structural material containing a seamless, enclosed hollow core material has a lightweight and high-strength features and can be easily formed by a vacuum RTM process. The above repairing method permits an easy, low-cost repairing without sacrifice in strength to thereby reduce the production costs of an FRP structural material.